Relationship Between Quality Culture and Organizational Performance With Mediating Effect of Competitive Advantage

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Abstract:

Quality culture and performance of the organizations has become matter of concentration and interest for the researchers and practitioners since the last few decades. The purpose of this study is to examine the relationship between quality culture and organizational performance with mediating effect of competitive advantage. Data was collected from telecommunication companies operating in Pakistan and analyzed for Cronbach's Alpha reliability, factor validity, correlation, and multiple regressions to test the stated hypotheses. Results revealed that there is positive and significant association between quality culture and organizational performance and that this relationship is significantly mediated by the competitive advantage.

Keywords: Quality culture, organizational performance, competitive advantage, Pakistan.

Introduction

In the extreme arena of competition, economic conditions and rapid in technology are happening with very fast pace. To meet with these challenges it has become necessary for organizations to get better competitive position and to increase the organizational performance in order to survive in the current marketplace. So the organizations have to induct the culture of quality in the organizations. The rapid pace of change in technology and working atmosphere intimidate organizational survival[1]. Quality culture is considered as influential human tool to make sure the growth and survival of organizations. Now all the telecommunication organizations have realized the strategic importance of quality culture for achievement of organization performance and excellence[2]. Quality culture is one of the most of the important issue that top management must take seriously to guarantee the successful implementation of TQM[3]. These

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TQM principles play positive role in the development of telecommunication organizations of Pakistan[4]. Most of the organizations in developing countries like Pakistan suffer from quality improvements initiatives and programs[5]. Most of the organizations have revealed the association between quality culture and role of human resources[6].

Problem statement:

The performance of the organization is the major issue to continue the competitive business environment which is straight away affected by the quality culture within the organization. Pakistani telecommunication sector with a focus on non-quality related issues like advertisement and marketing tools[4]. This study examines the relationship between quality culture and organizational performance in Pakistan's telecommunication companies with the help of moderating and mediating affects. The quality culture issues have rarely been discussed by top management at planning phase, this ignorance invites failure of quality culture[3]. Based on these evidences and references, the gaps between current and required performance have been found. Firstly very less number of quality related researches have been carried out in the area of telecommunication Pakistan due to certain reasons. Secondly, another gap was found that lack of educating the human resources in such a way that change of mindsets and behaviors are very necessary. Thirdly gap was found in human resources as to compete their competitors by adopting TQM practices like quality culture, six sigma and ISO standards. Fourthly gap was found that top management does not train their human resources and how to maximize the performance of their particular organizations. Lastly gap was found that lack of such a training, in which human resources must be taught to retain more and more customers and to increase the level of satisfaction of their customers.

Research objectives:

1. To explore the relationship between quality culture and organizational performance.
2. To examine the mediating role of competitive advantage between relationship of quality culture and organizational performance.

Total Quality Management:

Total quality management (TQM) is a set of values and actions that are committed to customer focus[7]. TQM theories consist of leadership, strategic planning, customer focus, information and analysis, people management and management process has significant effect on product quality performance[8]. TQM is not only based on philosophy of providing customer satisfaction and quality goods and services but it is concentrating on future requirements. The best TQM results can be achieved when an open, shared and cooperative culture is created by management and supported by organizational learning teamwork, and customer focus. TQM proponents have strongly argued that improving quality will result in several byproducts, including improved delivery and reduced cost. TQM aims to continuously improve the various processes and

practices in the organization; we often assume that it provides a means for assuring that innovation and self-renewal occur.

Gurus of Quality:

Many authors have studies the concept of TQM. In current days the fundamental and core ideas of TQM set forth by Edwards Deming, Joseph Juran, and Kaoru Ishikawa with significant and specific acceptance have evolved into some sort of established social movement[9].

TQM in Pakistan:

TQM can be more beneficial if it involves top management and leadership. Consequently the responsibility of top management to be productive in the preparing of effective and useful material on TQM[10]. There are eight basic TQM principles; HRD, customer focus, quality information and analysis, quality strategic planning process, public responsibility, benchmarking, top-management commitment and quality assurance[4]. A new paradigm of TQM is focusing on the customer satisfaction, continuous improvement and reduces the amount of wastage and these are considered as core of TQM. TQM is a management approach for improvement organizational performance[11].

Causes of failure of TQM in Pakistan:

In developing countries like Pakistan has traditionally a practice of centralized power and there is no accountability of poor quality[12]. Causes of failure of quality culture is bureautic way of managing the organizations and other factors are leadership styles, power centralization, resistance to change, inter departmental conflicts and behavioral problems[3]. unfortunately in developing countries like Pakistan the governments have shown very less focus and interest towards the creation of quality atmosphere in the organizations[13]. In an examination of quality management practices of different developing countries like India, China, Pakistan and Mexico and comparing with developed countries, results showed that the top management of developing countries are aware of modern quality management practices, tools and technologies but on the other side their quality improvement efforts are much lower than of developed countries[14]. Some researchers and quality practitioners blame to different TQM models that by implementing specific TQM models, then desired results could not be achieved and quality culture efforts fail because organizations are not capable to adopt changes[3]. The only most important and vital element is people, who perform different types of tasks to accomplish the organization's desired goals because these are the people who become the customers, suppliers, leaders and work as a team.

Quality culture: the independent variable:

We may attain the evolution and progression of quality culture by; focusing upon employees and enhancing specific human and social attributes[6]. The process of improving the performance of organization is called TQM and implementation of TQM is called quality culture[15].

Competitive advantage: the mediating variable:

When an organization carries out such activities that their competitors cannot do or own something and their competitors wish to do. Competitive advantage means to achieve organizational performance over its competitors and concern of competitive advantage is to execute different sort of activities. These new competencies collaborative, a growth and efficiency, zero waste, renewable resource, climate resilience and eco-performing measurement[16]. Competitive advantage based on two main factors which are as follow; organizational resources and mainly performance of the employees[17].

Organizational performance: the dependent variable:

Employees' performance plays considerable and substantial part in the performance of an organization. Practically organizational performance depends upon the performance of employees. If employees perform proficiently and efficiently then this will cause to enhance the performance of organization but on the other side if employees do not perform better then performance of an organization will tend to decrease. The complete execution of TQM can enhance the performance of an organization[18]. TQM practices have significant affect on performance of an organization[4].

Theoretical Framework:

Operational definitions are good judgment about a notion by specifying the actions and operations which are necessary to quantify[19].

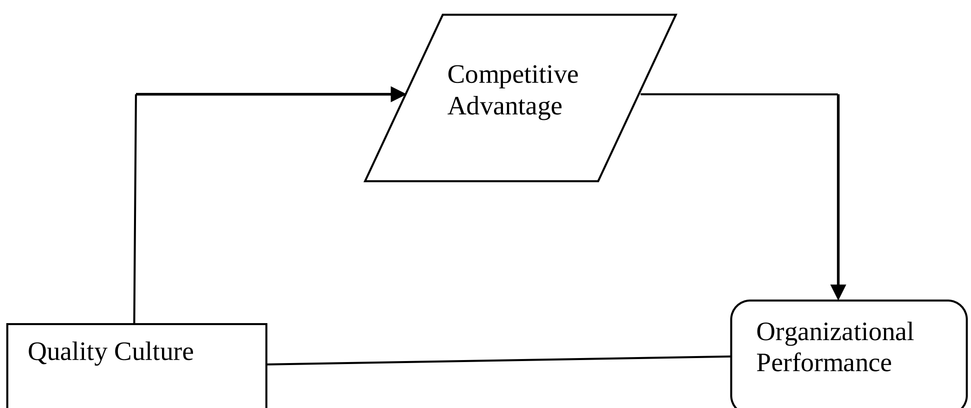


Figure 1: Theoretical framework

In the above mentioned figure theoretical framework the relationship of quality culture and organizational performance had been demonstrated with the mediating variable role of competitive advantage.

Hypotheses:

H1: Quality culture is significantly associated with organizational performance.

H2: Competitive advantage mediates the relationship between quality culture and organizational performance.

Research Methodology:

The research methodology means the research procedure. An approach to proceed for solution of a specific problem[20]. Validity can be evaluated through content and construct validity. Again construct validity analyzed through convergent and discriminant validity. Convergent validity used factor analysis technique and discriminate validity was measured through pair-wise correlation. Demographic analysis was analyzed through name, age, experience, qualification, gender, number of employees and number of officers etc. Multiple regression was applied to check the relationship of independent variables with dependent variable. This research is based on causal relationship; means there is cause and effect relationship between different variables of interest.

Unit of Analysis:

The level of accumulation of data collected throughout later data analysis stage is called the unit of analysis[21]. The unit of analysis in this study will be the individuals. Because the questionnaires have been distributed to employees of the telecommunication organizations and respondent will be responsible for filling the questionnaire and handed back to the researcher so that the data can be collected effectively and efficiently. Sampling is a method of selecting a representative part from a large collection of elements that helps in inference process[22].

Data Collection Method and Tool:

In this study the tool for data collection, the questionnaire has been used. The questionnaire has been divided into two major sections. First section consists on demographic and personal information about individuals. Open ended questions have the demerit of quantifying the responses. Some problems and topics are posed by open-ended response questions and answerers are asked to answer in his or her own words[26]. A questionnaire is a set of questions to collect data form respondents by giving them certain options to choose, that helps in defining the variables of interest at the analysis stage[28]. Some open ended questions were also included at later stage excluded because respondents were not interested to fill. Second section consists on 5-point likert scale and includes the questions regarding to two main frameworks of study i.e. quality culture and organizational performance. On the basis of extensive study of these two frameworks two more variables are added i.e. human resource (HR) and competitive advantage (CA). The questions were also included related to human resource and competitive advantage in the end of second stage. Online surveys are administered more easily using the advanced computer technologies[28]. Some questioners were also sent through an email in different cities, where personal approach was not possible. For analyzing the data, the SPSS 18 (version) has been used.

Targeted Population:

It refers to a group of elements of interest used in inferential process. The specific group of people, events or things of concern from which the researcher wants to get some result is labeled as targeted population[28]. Population for this research is telecommunication companies of Pakistan which includes 5 mobile companies and 2 land-line companies. 5 mobile companies are Mobilink, Ufone, Telenor, Zong and Warid as well as 2 land line companies are PTCL (Pakistan Telecommunication Company limited) and SCO. In this study convenience sampling technique was adopted. It is very easy and convenient way for data collection. Convenience sampling is obtaining by group of people who are mostly and easily accessible[26]

Reliability of Data:

The reliability of a measure specify the amount to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument[21]. In reliability, we check the stability and consistency. In the case of reliability we check the accuracy and precision of the procedure of measurement. Reliability means numerous things to numerous people, however in several circumstances, the conception of consistency emerges[23]. The measurement fulfills the requirements of reliability when it produces consistent results. The reliability is determined through Cronbach's alpha.

Validity of Data:

The magnitude to which a test measures what we really want to measure is referred by validity. Validity is the assessment that how much good enough the instrument has been developed to analyze the specific propositions which is intentional for the measurement. Validity is a test of how well an instrument that is developed measures the particular perception it intends to measure.

Reliability analysis

Cronbach's Alpha Coefficient:

Reliability analysis aims to identify items which are not clear and understandable among respondents[24]. A measure is trustworthy and reliable to the extent it provides steady and consistent consequences. A measure is only authentic till it provides coherent results. Cronbach's alpha coefficient normally lies between 0 and 1[25].

Reliability analysis of quality culture, organizational performance, and competitive advantage

Variables	Cronbach's Alpha
Quality culture	0.890
Organizational performance	0.895
Competitive advantage	0.926

All the values of all the constructs of Cronbach's alpha are closer to 1. In some cases this value is greater than 0.80 and in some case these Cronbach's alpha values are greater than 0.90 which revealed that these results are completely reliable and satisfactory.

Confirmatory Factor Analysis:

Prerequisites for the factor analysis procedure are the Kaiser-Meyer-Olkin measure of sampling adequacy which is also called as KMO factor and Bartlett's test of sphericity, which has three components approximately chi-square, df and Sig.

Kmo Measure of Sampling Adequacy and Bartlett's Test of Sphericity:

The Kaiser-Meyer-Olkin Measure of sampling adequacy and Bartlett's test of sphericity (KMO) output varies from 0 to 1, where 0 indicates that the sum of partial correlation is largely relative to the sum of correlations and this considers as unsuitable for factor analysis and 1 indicates that the correlations are exceptional. Kaiser has made stages as follows: a measure greater than 0.9 is fabulous, greater than 0.8 is meritorious, greater than 0.7 is middling, greater than 0.6 is mediocre, greater than 0.5 is miserable, and less than 0.5 is unacceptable[26].

Bartlett's Test:

Bartlett's test manipulates the original correlation matrix is not an identity matrix, which means there must be a relationship between the variables and this test must be significant at ($p<0.001$). The minimum range for Bartlett's test should be 0.50[27].

Analysis of Prerequisites for All Hypotheses:

All the prerequisites for regression analysis have been calculated for all hypotheses. To fulfill the requirements of these prerequisites Durbin-Watson and Levenes tests had been performed. The value of Durbin-Watson test is 1.665 which is in the acceptable range. In all hypotheses the tolerance value is 1 and variance inflation factor (VIF) is also 1, which means results are within the ranges and there is no multicollinearity.

Hypothesis 1: Relationship Between Quality Culture and Organizational Performance :

The correlation between quality culture and organizational performance was computed, which was found to be positive and significant ($r = 0.835$, $p<0.01$, $N=207$), where 1% probability the correlation caused by chance (Table 5-48). The independent variable (quality culture) was regressed by the dependent variable (organizational performance) and regression coefficient was found to be 0.835, which is significant at $p<0.01$. The value of R square changed 0.696 indicates that almost 70% variance in organizational performance is explained by quality culture. The β (beta) value of 0.835 indicated that contribution of quality culture in explaining organizational performance which is also significant at $p<0.01$.

Hypothesis 2: Mediating Effect of Competitive Advantage on The Relationship Between Quality Culture And Organizational Performance:

Step I :

Correlations table shown the output of Pearson's correlation which is 0.835 and significant at $p<0.01$. The value for Durbin-Watson test is 1.642 which is again in acceptable range.

Model Summary: $R = 0.835$, $R^2= 0.696$, Adj. $R^2 = 0.695$, $\Delta R^2 = 0.696$, S.E. = 0.375,

$F(1, 205) = 470.341$, $p<0.000$.

Step II

In correlation table the Pearson's correlation revealed the correlation between competitive advantage and quality culture, which was 0.777 and significant at $p<0.01$. Quality culture explained 79.027 significant variance in the competitive advantage and 51.869 considered as unexplained variance.

Model Summary: $R = 0.777$, $R^2= 0.604$, Adj. $R^2 = 0.602$, $\Delta R^2 = 0.604$, S.E. = 0.503,

$F(1, 205) = 312.339$, $p<0.000$.

Step III

Pearson's coefficient revealed that there is positive and significant relationship between organizational performance, quality culture and competitive advantage and significant as well.

Model Summary: $R = 0.872$, $R^2= 0.761$, Adj. $R^2 = 0.758$, $\Delta R^2 = 0.761$, S.E. = 0.334,

$F(2, 204) = 324.019$, $p<0.000$.

Discussion on Hypothesis and Research Questions:

This research explored the relationship between quality culture and organizational performance of telecommunication companies with the mediating effect of competitive advantage and moderating effect of human resource. Telecommunication companies have to stimulate positive work attitudes, including loyalty to the organization, pride in work, and a focus on common organizational goals. From the analysis of data collected from targeted population it proved that competitive advantage is playing role as mediating variable but on the other side human resource did not play significant role as moderating variable. Although this moderating variable contributed to conclude the relationship between quality culture and performance of telecommunication companies, but this value (0.034) is too smaller though it was also significant at 0.01. Even in the field of human resource management no one can ignore the importance of human resource, because human resource (employees of telecommunication companies) is key element and the organizations jog on the basis of these human resources. An analysis of important factors of total quality management (TQM) across different countries suggested that top management

commitment and leadership, customer focus, education and training, supplier partnership and management, employee involvement, human resource management, teamwork and others were the most frequently factors affecting quality practices and organizational performance[28]. All the facets of quality cultures are positive and significant. The consequences of data analysis have supported the affiliation between quality culture and organizational performance from all respects. All the dimensions of quality culture and organizational performance are evaluated by the different statistical techniques, which gave affirmative expectations for current study as well as for future implications. Telecommunication companies having friendly and exciting relations with their employees are easily getting their goals. In Pakistan numerous studies have been conducted on the subject of quality culture and organizational performance, but this precise kind of investigation yet not being conducting with mediating and moderating effect this is the uniqueness of this research. On the basis of research questions explained in the first chapter, thirteen hypotheses were developed. Eight hypotheses were developed to make sure in general relationship between quality culture and performance of telecommunication companies, which was also found positive and significant. The entire hypotheses, which were developed in prior chapter, all were supported and validated this research, except the hypothesis of human resource as moderating variable.

Conclusion :

Empirical evidence was also found in this research which confirmed that quality culture was positively significant with performance of telecommunication companies. Both hypotheses advocated this research as significant as 0.01. It seems constructive and optimistic, there is much so far to be achieved by Pakistani telecommunication companies on their road to TQM. Based on literature review two models for this study were developed and tested for validity and reliability. Reliability and validity of research instrument were evaluated by Cronbach's alpha and factor analysis.

Basically purpose of this research was to answer the research questions, mainly after examining quality culture in telecommunication sector of Pakistan. This research indicated there was positive and significant relationship between quality culture and organizational performance. The findings of this research also revealed if quality culture is carefully deployed in telecommunication companies, brings valuable improvements. This research also revealed that if satisfactory and quality service provided to customers then there is more chance for telecommunication companies to grow. This research also indicated that teamwork among employees would pave the path for continuous improvement and supplier partners could also play differentiating role to achieve the desired goals.

Direction for Future Research:

This research can be further extended and replicated to more industries like banking, commerce and NGO's. The other future research area can be

further dimensions of quality culture like encouragement, empowerment, continuous improvement, top management commitment and the measurement instrument of all these dimensions should be developed and evaluated.

The researcher has applied some of statistical concepts like factor analysis and regression analysis but in the future research, other statistical techniques should be apply like multivariate and bivariate analysis, which will provide more insight about these different relationships. Another future research area identified by the researcher in this regard in which the relationship between competitive advantage and human resource may be checked as to whether the competitive advantage could be gain by human resources.

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